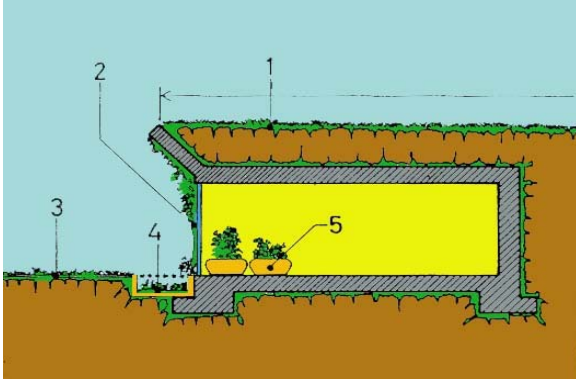


## REF: 01 DESIGN FEATURES

### FEATURE 1: GREENERY

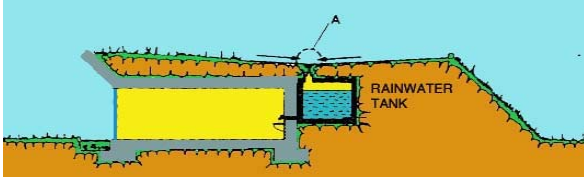


#### LEGEND:

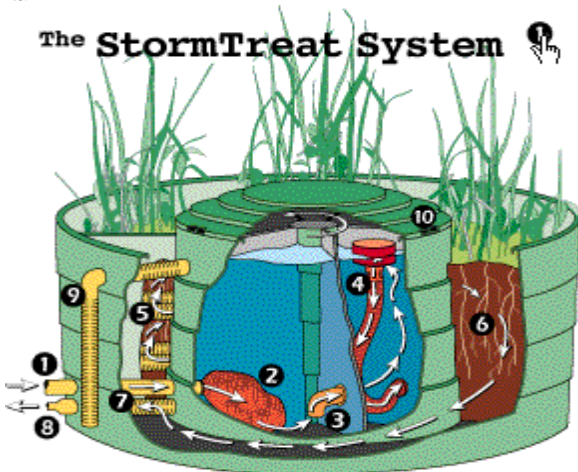
- 1 Upper greenery
- 2 Front and side greenery (e.g. creepers)
- 3 Front yard greenery
- 4 Heat sink greenery
- 5 Indoor greenery

Building this EcoHouse would provide you increased green areas on both building axes.

### FEATURE 2: RAINWATER COLLECTION AND TREATMENT

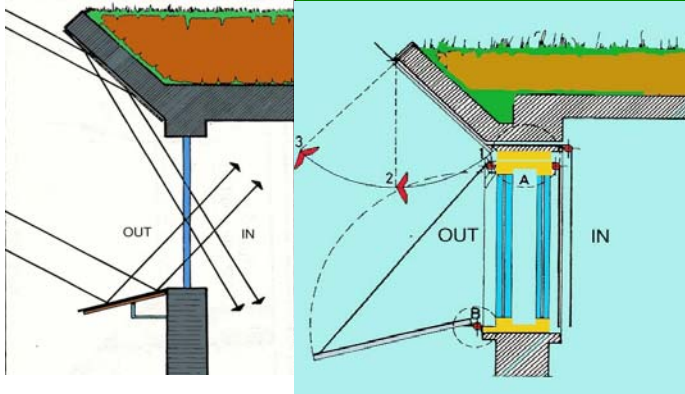


Surface water can easily be utilized in this EcoHouse design to reduce the domestic water consumption expenses. Being earth-sheltered, the water tank is protected from extremely low or high temperatures. The earth falls around the tank are profiled in such a way as to funnel the rainwater into the tank.



The collected water is then thoroughly treated for domestic consumption using the state-of-the-art StormTreat System™ produced by StormTreat Systems, Inc. Rainwater is treated by 100% biological means and is 100% safe for domestic use.

### FEATURE 3: ADJUSTABLE REFLECTING/INSULATING SHUTTERS



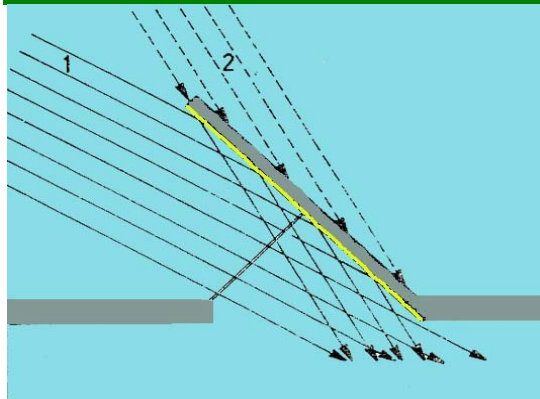
#### LEGEND:

- 1 Reflecting position
- 2 Shading device position
- 3 Precipice protection position

Reflective surfaces have been used to direct the sunlight into the interior. They rest on insulating boards, that prevent heat losses from the previously heated interior to the outside, thus acting together as reflecting/insulating shutters. The upper reflecting/insulating surfaces act as shading devices.

The angle of reflection of sun's rays varies according to season, the sun's altitude and the latitude of the place on planet Earth where you intend to build your EcoHouse. Therefore, the shutters and the shading devices have been designed as fully-adjustable, operated manually (i.e. without any mechanical devices involved), so that you can position them to conform to your heating/cooling needs.

### FEATURE 4: REFLECTING/INSULATING SKYLIGHTS



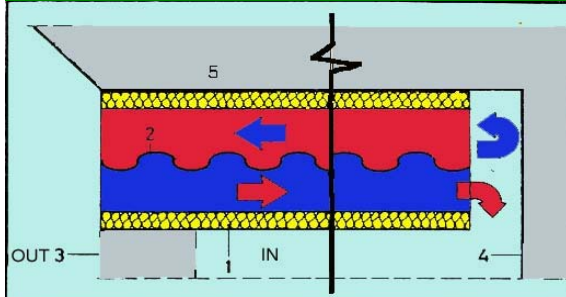
#### LEGEND:

- 1 Sunlight reflected into the building in the morning/afternoon or the winter season
- 2 Protection against excessive sunlight

The windcatches provided for natural cross-ventilation are provided with skylights to serve as additional natural lighting sources. The skylights should be directed to face your prevailing winds and/or natural light sources.

They are designed with an inner reflecting surface attached to an insulating board. The former reflects sunlight into the home, the latter prevents heat losses from inside to the outside.

### FEATURE 5: AIR HEAT CONVERTER CEILING, WITH NATURAL VENTILATION



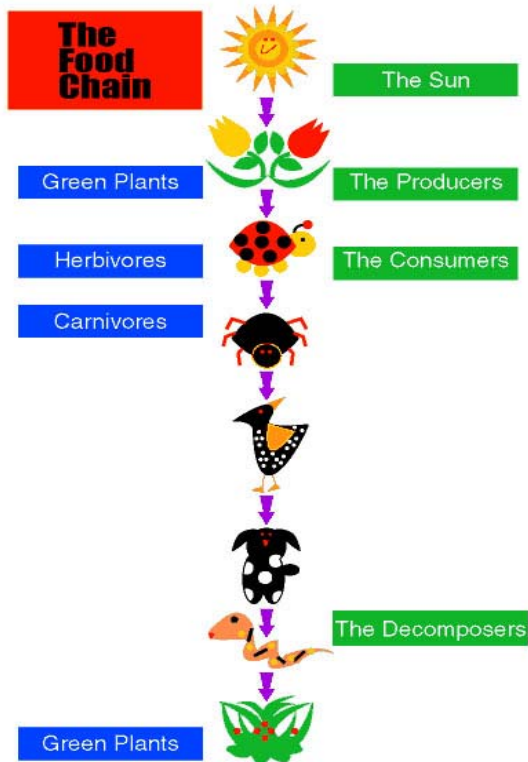
#### LEGEND:

- 1 Lower insulated ceiling surface
- 2 Metal divider
- 3 Southern wall of the EcoHouse
- 4 Northern wall of the EcoHouse
- 5 Upper insulated ceiling surface

Recycled exhaust and foul indoor air has been used to heat the

cool outdoor air entering your EcoHouse. The ceiling runs the length from northern to southern wall respectively, so that the rising, hot indoor air heats up the incoming cool/cold air, using the principles of convection.

#### FEATURE 6: THE FOOD CHAIN



An ecosystem is a living community which depends on each member and its surrounding environment. The living part of an ecosystem is sometimes called a food chain.

Every participant in an ecosystem has an important part to play and if one becomes more dominant than the others, the ecosystem can develop problems.

Let's start with the producers. These are living things which take the non living matter from the environment, such as minerals and gases and uses them to support life. Green plants are considered producers and the are at the beginning of the food chain.

Next are the consumers. These living things need the producers to be their food.

Animals who eat plants are called herbivores. They are considered consumers and are next in the food chain.

Animals who eat other animals are called carnivores. They also onsidered consumers and are a link farther along on the food chain since they need the herbivores for their food.

Animals and people who eat both animals and plants are called omnivores, and they are also part of the consumer piece of the ecosystem.

Finally, the last part of the ecosystem is the decomposers. These are the living things which feed off dead plants and animals thus reducing their remains to minerals and gases again. Examples are fungi, like mushrooms and bacteria.

This EcoHouse introduces a food chain to provide additional food sources to the household which, bearing in mind that two thirds of the world's population is virtually on the constant brink of starvation, provides extra opportunities towards a sustainable, self-supporting home.

[Find EcoHouse-Plans \(Find ecological home plans at EcoHouse-Plans.com\)](http://EcoHouse-Plans.com)



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